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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,230	11/25/2003	Naruhiro Masui	R2184.0076/P076-A	4347

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EXAMINER	
CHU, KIM KWOK	

ART UNIT	PAPER NUMBER
2627	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/720,230	MASUI, NARUHIRO	
	Examiner	Art Unit	
	Kim-Kwok CHU	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Remarks filed on 3/30/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14,15 and 17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14,15 and 17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/25/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/584,693.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Remarks

1. Applicant's Remarks filed on March 30, 2007 has been fully considered but it is not persuasive.

With respect to the rejected Claims 14, 15 and 17, Applicant states that the prior art of Taniguchi (U.S. Patent 5,901,123) does not teach the first and second codes are generated to meet "a low-frequency reduction scheme" and form part of the basis for the modulated codes generated by the data encoding means (page 2 of the Remarks, lines 7-10). Accordingly, the prior art of Taniguchi teaches sync frame information stored in a sync frame as illustrated in Fig. 2. These sync frame information/codes are digital pulses which can be considered as high frequency waveforms. Furthermore, these sync information are generated by the pre-format encoder 22 as illustrated in Fig. 3. The pre-format encoder is a data encoding means and it generates codes such as odd/even codes which are part of the modulated data stored in the sector.

In more detail, Applicant states that the prior art of Taniguchi does not disclose or suggest at least two characteristics: First, the codes are not contained within the pre-pits (page 3 of the Remarks, second paragraph, lines 1-3). Accordingly, the prior art of Taniguchi (U.S.

Patent 5,901,123) teaches even and odd sync frames as illustrated in Fig. 2. The sync frames are recordable regions in a sector and therefore each frame's sync information is not contained within the pre-pit 4. In Taniquchi's Fig. 1, the pre-pit region 4 is not a sector which contains 26 sync frames. In other words, the prior art of Taniguchi teaches that the sync frame information (odd/even codes) are not stored in the prepits 4.

Second, Applicant states that the prior art of Taniguchi's sync information (codes which represent sync patterns) in a sync frame is not generated to meet a low-frequency reduction scheme (page 3 of the Remarks, last paragraph, first three lines). As explain above in the second paragraph of the present office action, the prior art of Taniguchi's information stored in each sync frame (26 sync frames in a sector) is generated by a pre-format encoder 22 to meet a low frequency reduction scheme because the generated sync information are in form of digital pulses which can be considered as a kind of high frequencies waveforms.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> *A person shall be entitled to a patent unless --*
> *(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

3. Claims 14, 15 and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Taniguchi et al. (U.S. Patent 5,901,123).

4. Taniguchi teaches an information recording apparatus for recording a sequence of sync frames having all the elements and means as recited in claims 14 and 15. For example, Taniguchi teaches the following:

(a) With respect to Claim 14, the sequence of sync frames (as illustrated in Fig. 2) indicates of data onto tracks of an optical recording medium in which prepits 4 (pre-information/addresses) are formed on the tracks at given intervals (Figs. 1 and 2; column 9, lines 43 and 44); the sync frames in which sync patterns (sync pre-information as illustrated in Fig. 2), providing synchronization on a sync-frame basis, are inserted in the sync frames (26 sync frames are in a sector) such that each

sync pattern has a length in a track direction larger than a length of one of the prepits 4 (pre-information/address) and a position of each sync pattern matches with a position of at least one of the prepits 4 (Fig. 2; column 10, lines 16 and 18); first (even) sync information generating means for generating first codes (even sync pre-information) that represent first sync patterns for a portion of the sync frames such that each first (even) sync pattern is formed as a space 3 on the recording medium (Fig. 2; sync information has even and odd patterns; even sync pattern is formed by spaces separated by marks); second (odd) sync information generating means for generating second codes (second sync pre-information) that represent second (odd) sync patterns for the remainder of the sync frames such that each second (odd) sync pattern is formed as a mark on the recording medium so as to meet a low-frequency reduction scheme (Fig. 2; sync information has even and odd patterns; odd sync pattern is formed by marks separated by spaces; pre-formatted sync information are high frequency pulses); sync information selecting means (Fig. 3; in pre-format encode 22) for selecting one of the first (even) codes generated by the first sync information generating means and the second (odd) codes generated by the second sync information generating means (Figs. 3 and 4; even and

odd pre-information are written of the tracks); prepit position signal detecting (selecting) means 42 for detecting a prepit position signal from one of the prepits for each of the sync frames during the writing of the recording pulses to the recording medium (Figs. 4 and 5; column 15, lines 35-50); write position signal generating means for generating a write-position start signal based on the prepit position signal detected by the prepit position signal detecting means (Figs. 8A and 8B; column 15, lines 33-50); data encoding means 22 for generating modulation codes based on the sync frames in which the codes selected by the sync information selecting means are inserted, by modulating the sync frames containing the selected codes in accordance with a predetermined modulation scheme (Figs. 3 and 4); the data encoding means 22 generating a sequence of recording pulses by converting the modulation codes through a predetermined conversion scheme, and the data encoding means starting outputting the sequence of recording pulses in accordance with the write-position start signal supplied by the write position signal generating means (Figs. 6A-6C).

(b) With respect to Claim 15, the prepit position signal detecting means 42 detects a prepit position signal from a sync prepit of the prepits for one of the sync

frames, and the write position signal generating means generates a write-position start signal based on the detected prepit position signal, and the sync information selecting means is configured to select the first codes when a position of one of the sync patterns on the track adjacent to the land where the sync prepit is formed, matches with a position of the sync prepit, and otherwise to select the second codes (Figs. 8A and 8B; column 15, lines 33-50).

5. Claim 17 has limitations similar to those treated in the above rejection, and is met by the reference as discussed above. Claim 14 however also recites the following limitation which is also taught by the prior art of Taniguchi:

(a) a position of a data mark matches with a position of at least one of the prepits (Fig. 2; data are indexed by prepits).

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington, can be reached on (571) 272-4483.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

Kim-Kwok CHU

Examiner AU2627 6/21/2007

June 21, 2007
(571) 272-7585

ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER